**SPACE**
**Pacific**

**Membership Notes:**

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## Programme Access roundup

The turn-on of Palapa C1 and the gradual development of a programmer base on AsiaSat 2 has greatly expanded the programme access world for DTH and cable services throughout the Pacific. With many more programmers promising service on As2 in the coming 90-120 days, and additional new satellite programmer launches during the balance of 1996, the future of DTH and cable in the Pacific has never looked more promising. And although SatFACTS for April 15th (#20) contained a detailed analysis of C1 reception quality covering a wide area of the Pacific, the table appearing on pages 2 and 3 will present this in a different format; by antenna size. Read down this table to determine what services are available in each area on various size dishes.

SatFACTS #20 also reported (Coop's Comment) a subtle but important change in DTH policy in Australia. As of now, it is no longer illegal, immoral nor fattening to purchase a dish within Australia and subscribe to foreign (i.e., non-Australian) television services. We print here on page 4 the important letter to SPACE Member Les Brooks (Alice Springs) from Senator Richard Alston setting forth the revised policy. This policy change has an immediate impact on the following programme source groups:

**1)** STAR TV - at least in so far as STAR encrypts using analogue STARcrypt on Palapa C1;

**2)** Indovision - using PAL B-MAC on four analogue channels on C1 (TNT + Cartoons, Discovery, ESPN and HBO Asia);

**3)** Cable programmers - including but not limited to MPEG services ABN, CTN, (CCTV), NBC Asia, CMT and the Filipino Channel.

There is, however, an important distinction between the changed policy of the ABA and the ongoing policies of the various programmers. It is no longer illegal to subscribe to these services as far as the ABA is concerned but the services themselves may well continue to have policies which exclude Australia from the authorised coverage areas. For the most part, services such as Indovision stayed out of Australia because they faced very stiff monetary fines and sanctions if they were caught accepting subscriptions there. We all know that a very

**SPACE MEMBER UPDATE for C-band satellites that are geostationary or inclined only slightly and requiring no elevation tracking. See definitions below.**

| Satellite / Service | Western Australia | Central Australia | Eastern Australia | Northern Australia | New Zealand | New Caledonia+ | Tonga plus |
|---|---|---|---|---|---|---|---|
| P4/MTV | 4m+ | 4m+ | not visible | 3m+ | nv | nv | nv |
| P4/TNT+ | 4m+ | 4m+ | nv | 3m+ | nv | nv | nv |
| P4/CNN | 4m+ | 4m+ | nv | 3m+ | nv | nv | nv |
| P4/Sony | 4m+ | 4m+ | nv | 3m+ | nv | nv | nv |
| P4/ESPN | 4m+ | 4m+ | nv | 3m+ | nv | nv | nv |
| P4/ABN | 4m+ | 4m+ | nv | 3m+ | nv | nv | nv |
| Insat 2C | >6m | >6m | >6m | 4m+ | nv | nv | nv |
| As2/Rtpi | 3m+ | 2.4m+ | 2.4m+ | 2m+ | 3m+ | 2.4m+ | nv |
| As2/CCTV | 3m+ | 2.4m+ | 2m+ | 2m+ | 2.4m+ | 2.4m+ | nv |
| C1/Star | 5m+ | 4m+ | 4m+ | 3m+ | >6m | 6m+ | nv |
| C1/CFI | 3m+ | 2.4m+ | 2.4m+ | 2m+ | 2.4m+ | 4m+ | nv |
| C1/MTV | 5m+ | 4m+ | 4m+ | 3m+ | >6m | 5m+ | nv |
| **C1/ESPN*** | 5m+ | 4m+ | 4m+ | 3m+ | >6m | 6m+ | nv |
| C1/TPI | 3m+ | 2.4m+ | 2.4m+ | 2.4m+ | 3m+ | 5m+ | nv |
| C1/Indosair | 3m+ | 4m+ | 4m+ | 3m+ | 4m+ | 4m+ | nv |
| C1/GMA | >6m | >6m | 3.5m+ | 3m+ | >6m | 5m+ | nv |
| C1/AnTeve | >6m | 5m+ | 4m+ | 5m+ | 5m+ | 5m+ | nv |
| **C1/HBO*** | 3.7m+ | 3m+ | 2.4m+ | 2.4m+ | 2.7m+ | 4m+ | nv |
| C1/CNNI | 4m+ | 3m+ | 3.7m+ | 3m+ | 3.7m+ | 3.7m+ | nv |
| C1/SCTV | 5m+ | 3.7m+ | 5m+ | 3m+ | 4m+ | 3.7m+ | nv |
| C1/ABN | 3.7m+ | 3m+ | 3m+ | 2.4m+ | 3m+ | 3.7m+ | nv |
| **C1/TV3** | 4m+ | 3m+ | >6m | 5m+ | 3.7m+ | 3.7m+ | nv |
| C1/ATVI | >6m | 3m+ | >6m | 3m+ | >6m | 3.7m+ | nv |
| C1/TVRI | 5m+ | 3m+ | 3m+ | 2.4m+ | 3m+ | 3.7m+ | nv |
| **C1/RTM-1** | >6m | 3.7m+ | >6m | 4m+ | 3.7m+ | 3.7m+ | nv |
| C1/RCTI | >6m | 5m+ | >6m | >6m | >6m | 3.7m+ | nv |
| **C1/TNT*** | 4m+ | 3m+ | 6m | 2.4m+ | 2.7m+ | 3.7m+ | nv |
| **C1/Disc.*** | >6m | 4m+ | >6m | 3m+ | 6m+ | 4m+ | nv |
| C1/CNBC | >6m | 4m+ | >6m | 3m+ | 6m+ | 3.7m+ | nv |
| R130/Sun1 | >6m | 6m+ | >6m | 4m+ | >6m | >6m | >6m |
| R130/IBC13 | >6m | 6m+ | >6m | 4m+ | >6m | >6m | >6m |
| R130/AsiaN | >6m | 6m+ | >6m | 4m+ | >6m | >6m | >6m |
| R130/Sun2 | >6m | 6m+ | >6m | 4m+ | >6m | >6m | >6m |
| R130/RAJ | 2.4m+ | 2.4m+ | 2.4m+ | <2m | 2.4m+ | 2.4m+ | 4m+ |
| R142/Emtv | 3m+ | 3m+ | 3m+ | <2m | 2.4m+ | 2.4m+ | 4m+ |
| R142/ATN | 3m+ | 3m+ | 3.7+ | 3m+ | 3.7m+ | 3.7m+ | 5m+ |

Reverse lettering indicates subscription required; underlined indicates some programming hours are encrypted and no subscription mechanism is available for subscribing.

| Satellite/ Service | Western Australia | Central Australia | Eastern Australia | Northern Australia | New Zealand | New Caledonia+ | Tonga plus |
|---|---|---|---|---|---|---|---|
| **Abn/Ctn/ Cctv/NBC** | 3m+ | 3m+ | 2.7m+ | 3m+ | 3m+ | 3.7m+ | >6m |
| **Cmt/Bbc2** | 3m+ | 3m+ | 2.7m+ | 3m+ | 3m+ | 3.7m+ | >6m |
| **TNT+** | 3.7m+ | 3.7m+ | 3m+ | 3m+ | 3.7m+ | 4m+ | >6m |
| CNN | 3m+ | 3m+ | 3m+ | 3m+ | 3m+ | 4m+ | >6m |
| NHK | 2.7m+ | 2.7m+ | 2.4m+ | 2.7m+ | 2.7m+ | 3.7m+ | >6m |
| **Filipino Ch** | 3m+ | 3m+ | 2.7m+ | 3m+ | 3m+ | 4m+ | >6m |
| ANBC | 2.4m+ | 2.4m+ | 2.4m+ | 2.7m+ | 2.7m+ | 3m+ | 6m |
| RFO | 3m+ | 3m+ | 3m+ | 3m+ | 3m+ | 3m+ | 3m+ |
| Worldnet | 3m+ | 3m+ | 3m+ | 3m+ | 3m+ | 3m+ | 3m+ |

2/ BBC is not presently available to DTH or cable.

sizeable number of satellite DTH viewers located in "outback" and Northern Territory regions of Australia have, none the less, subscribed to a range of these services. In the past it was necessary to "create" a physical subscription address in an "authorised country" (such as Indonesia or PNG) where at least on paper the decoder unit would be located.

It is unlikely, even given the relaxation of the ABA rule against pay TV subscriptions, that in the near term those who arrange decoders from Indonesia (et al) will be able to gain subscriptions without following this "false address" ploy. It will take some time for the various pay TV programmers to learn about the policy change and to develop new internal policies and procedures to directly accept Australian subscribers.

At least one service may not come to the Australian "DTH Party" even after reviewing the change in policy. HBO Asia has advised a SPACE Member enquiring for a cable TV affiliation that, " *Our movie contracts with the four major studios restrict our subscription area to Asia. We specifically are by contract refused the right to accept subscriptions in either Australia or New Zealand because the four studios already maintain pay TV movie contracts in both countries with other firms* (i.e., Galaxy and Sky TV)." However, SPACE members in the Pacific islands area (including New Caledonia) have had a different result with HBO and some already have Indovision decoders functioning there from the C1 service; all with the complete knowledge of HBO Asia. This simply means that in addition to Indonesia itself being a source for Scientific Atlanta model CDE-2000 (Indovision) decoders, and Australia being a secondary source, that islands in the Pacific may also become distribution points for the decoders.

Pricing on the CDE-2000 varies; the Jakarta price will seldom be the price outside of Indonesia. Within Indonesia, subscribers pay approximately US$500 for the decoder (not an IRD - this is a decoder that requires unfiltered, unclamped baseband output from the receiver to function) and then US$480 for a year's subscription to the four Indovision services. With the present C1 configuration, Discovery and ESPN are generally not receivable south of middle Queensland on DTH range (3m) dishes although New Caledonia does have service on 3 of the 4 channels (less ESPN). Thus US$980 is the basic price which translates to A$1500 / NZ$1600 at the Jakarta price level. Nominally, A$2,000 is being charged by re-distributors who are buying themselves through Indonesia, piling up freight and customs costs to their point of distribution, and then adding a mark-up before reselling. SPACE members dealing in Indovision or STAR TV decoders should contact us with details on availability and pricing

and your permission to pass this information along to other interested members. Note: If you request information concerning Indovision decoders, we must have your full name, address and SPACE membership number (found on your membership certificate).

Senator Richard Alston letter to member Les Brooks sets forth "policy" for pay TV DTH now in effect for Australia. As reported in SatFACTS April 15th, good news for SPACE members.

PARLIAMENT OF AUSTRALIA · THE SENATE

SENATOR RICHARD ALSTON

*Deputy Leader of the Opposition in the Senate*
*Shadow Minister for Communications*
*and the Arts*

Mr Les Brooks
Alice Springs Action Group
PO Box 970
ALICE SPRINGS NT 0871

Dear Mr Brooks

Thank you for your letter regarding the availability of pay TV services in remote Australia.

My office has made inquiries with the Australian Broadcasting Authority (ABA). Currently there is no restriction on individuals receiving either free-to-air or pay TV signals from international satellites.

The restrictions currently in place apply only to the retransmission of pay TV signals. There is nothing legally preventing individuals from purchasing a satellite dish and decoder and tuning in to these services. However, the retransmission of pay TV signals, for instance on a local cable network, will be illegal until July 1997.

The two commercial satellite pay TV operators - only one of which, Australis, is operating - paid significant sums at auction for these licences. As you have correctly noted, changes to licensing arrangements for pay TV to allow retransmission could only be contemplated if they did not prejudice the licensees' interests in advance of July 1997.

The Coalition's commitment to the improvement of rural communications services is reflected in the safeguards we have established for the partial privatisation of Telstra, including maintenance of price caps, cross-subsidies to the bush, and untimed local calls. We are similarly committed to providing adequate broadcasting services.

It is difficult to make a judgement on the details of your broadcasting proposal without more information on the potential impact on the satellite pay TV licensees. However, a Coalition Government would be keen to examine your proposal with the benefit of advice from the Department of Communications and the Arts, to determine how broadcast services can be better delivered in rural areas without prejudice to the satellite licensees before July 1997.

Thank you again for your letter.

Yours sincerely

Richard Alston

Senator Richard Alston
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RKR/drk

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Programmer Update

DeutscheWelle advises SPACE, "We hope to be able to start with test transmissions via AsiaSat 2 in mid-April. There have been problems with the (turn around) uplink station in Israel. The transmissions will be in MPEG2 only."

SatFACTS carries an unverified report that testing had begun April 4th and this report was apparently in error. The status of DVB Compliant receivers continues to be bleak (see SF for April 15, p. 16). Members equipped with spectrum analysers will at least be able to detect the presence of the European Bouquet services when they do appear (horizontal, 1150 IF).

Cable and SMATV members will be interested to learn of a recent communique from United International Holdings (see April 15th SF, p. 22). They are now less specific concerning a start date for the 10 programme channel service detailed in SatFACTS and are suggesting "July" is better described as "third or fourth quarter [1996]." This does not come as a surprise since their original business plan required them to have access to a geostationary (i.e., not inclined orbit) satellite and 180E has always been their first location choice. With the delay in I180 being a stable bird until quite late this calendar year, the liklihood that UIH would postpone their programme launch to the replacement of I180 with a newer satellite was always an ingredient in the start date of the service.

HBO Asia, while officially not available to DTH viewers in New Zealand and Australia, does consider the following regions to be within its "legal" (as in copyright fees paid for) coverage zone:

Singapore, Brunei, Taiwan, The Philippines, Bali, Thailand, Indonesia, Bangladesh and Papua New Guinea. This information appears in the HBO FAXLINE programme listing (852-172-77-380) and the inclusion of Papua New Guinea in their official coverage region is of more than passing interest. Based upon the degree of cooperation Pacific Islands SPACE members are reporting from HBO (in obtaining authorisation for "test purposes" from the HBO Palapa feed), it will not be too surprising to see many additional north-central Pacific region island nations added to this list over the coming months.

Television New Zealand says their 3 channel "Lifestyle" programming package, also to be available on Intelsat (I180) before the end of the year, will feature a travel channel, an outdoors and camping channel and a food channel. As reported in SatFACTS (March 15, p. 23), this package of three programme channels will be in DVB Compliant MPEG which suggests that a single receiver for the UIH package could also be used for the TVNZ package; 13 programme channels in total. The TVNZ package will cost cable operators in the range of NZ$2.70 per month (or, $0.90 per cable home connected per programme channel). There are currently discussions underway with both TVNZ and UIH on the part of SPACE to encourage both programmers to make these services available for DTH throughout the Pacific region served by I180. (Contact: Stephen McElrea, TVNZ Project Director at 64-9-377-0630)

The MARK LONG / SPACE Accreditation Course

As announced in our monthly "Memo" column in SatFACTS for February 15th, noted satellite TV author and industry pioneer Mark Long (a resident of Thailand) and SPACE have reached agreement for a home study member-course. We are fine tuning the course at this time and anticipate making it available after June 1st to members.

The purpose of the course is two-fold:

**1)** To provide an educational opportunity for members (all levels of members) to develop the skills required to be an effective practioner in the new world of satellite communications in the Pacific and Asia;

**2)** To receive formal recognition of completion of the course that will include a certificate which installer dealers and other tradesmen can proudly display.

Who is qualified to complete the course? Any SPACE member or an employee of a SPACE member firm (including people who work for dealers and distributors).

What does the course cover? See boxed material below.

How is the course managed? Course participants receive a specially edited 45 minute PAL format videotape which describes important parameters of services, a textbook, and textbook inserts. Materials for the course will come through SPACE but originate with Mark Long's MLE Enterprises.

Participants will receive all of the course materials when enrolling and their first exam (test) materials. Because this is a home study course, you will proceed at a pace which suits your time available. Following the course outline, a participant will study through the point where the first exam is scheduled, and then sit to complete that exam. The exam paper will be returned to SPACE where after an initial checking for completeness we will forward it to Mark Long for grading. The second exam paper will then be sent to the enrollee and the process will repeat: Study, exam and grading of the exam paper.

When the last exam is graded Mark Long will issue the Course Completion Certificate which will be mailed to the participant. Participants who experience difficulty with the material and exams will be contacted privately for one-on-one tutoring. It will be possible to fail the course, but only if a participant "gives up."

There has been discussion concerning a special "expedited" or "cram" course period to coincide with SPRSCS '97 (Auckland, January 21 to 25). The concept is that Mark Long would personally tutor the course over a two day period, perhaps January 20 and 21. Mark believes there must be 15 or more people signed up for such an SPRSCS '97 event to make this possible and we are soliciting views from members.

Costs? NZ/$650 (gst inclusive for New Zealand), A$600, or US$394. The fee may be charged on VISA card.

Course Outline / SPACE MLE Certification

1) Introduction to satellite technology
-terminology and basics-
2) How the satellite is designed, functions
-understanding the 'transmit end'-
3) World video standards
-adapting to SECAM, PAL and NTSC variations-
4) Basics of digital compression
-multiple programmes on a single transponder-
5) World satellite TV encryption systems
-B-Mac and other encryption formats-
6) Satellite audio reception techniques
-sub-carriers, stereo, sound in syncs-
7) International satellite TV earth stations
-mechanics of each system component-
8) Installations for television receive only (TVRO) /* - see below
-from mount to cable to dish alignment-
9) Polar Mount Installations
-dish tracking across full orbit belt-
10) Tracking of inclined orbit satellites
-special techniques for satellites that move-
11) Satellite Master Antenna systems
-mixing terrestrial and satellite channels-
12) Antenna and feedhorn geometry
-selecting the best feed for each dish-
13) Solar outages and rain fades
-being prepared for occasional loss of signals-

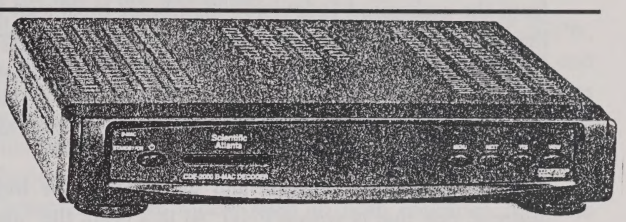
* / Optionally available, dish assembly and installation techniques videotape prepared by Paraclipse expert Tim Alderman

SPRSCS '96 Seminar Follow-up

With this issue of Member Notes are the graphic illustrations that were utilised during the session dealing with creation of Neighbourhood based cable television systems. Since the January show, 21 would-be cable operators have visited the Far North Cable TV Ltd. system being constructed in northern New Zealand. The system presently carries 24 channels to more than 100 homes and continues to expand at a rate of approximately 500 metres of (buried) cable per week with a target goal of 330 subscribers by February 1, 1997.

INDOVISION in the Pacific:

# LEGAL OR NOT???



Scientific Atlanta CDE-2000 Indovision decoder

The increased coverage area for Palapa (C1) raises questions concerning the legal use of Indovision (and STAR) programming outside of their previous coverage regions. There are four programmers involved in the Indovision package at this time: HBO Asia, TNT + Cartoons, Discovery and ESPN. All four services are broadcast in English and utilise a variation of PAL B-MAC encryption. To support this pay television service in the field, the programmers have secured a special version of the B-MAC decoder from Scientific Atlanta; the CDE-2000. This unit is not known to be in use anyplace else in the world and is available through the Indovision firm headquartered in Jakarta. Indovision maintains subscription agencies throughout Indonesia plus Singapore, Taiwan, Bali, the Philippines, Thailand, Bangladesh and Papua New Guinea. Users in the Solomon Islands are supported through agents in either PNG or Indonesia.

The CDE-2000 has a street price in the region of US$500. This is a decoder only, not an IRD, and it is connected to a suitable receiver using the baseband output jack on the receiver. The CDE-2000 requires "unfiltered, unclamped" baseband video to drive it and some receivers label this "extra" output as "B-MAC" while others call it "Unclamped / (Unfiltered)." A description of the proper hook-up will be found in SatFACTS #21 for May 15, 1996.

The decoder alone is quite useless without authorisation. To obtain authorisation, a subscriber must pay the annual "package fee" of US$480 for the four channels of service; US$1.31 per day for all 4 channels, US$0.33 per day per channel. CNNI, on Palapa, was at one time also a part of this service but is currently FTA.

Authorisation requires payment of the annual fee and identification of the location of the CDE-2000. It is the "identification of location" portion which forces users outside of the countries previously listed into the grey area between legal and illegal.

The programming found within the package has been purchased by the individual programmers for distribution only into certain geographic areas. HBO Asia, for example, purchases the right to show Jurassic Park (first shown at 8PM Taiwan time April 13th) based upon copyright clearances. HBO pays a fee for showing the movie one or more times (the actual number of times is stipulated in the contract) to Indovision subscribers in specified countries. HBO has purchased rights to show this movie (as well as the balance of their monthly schedule) on an exclusive "pay TV" basis only in the countries specified by the contract. It has negotiated no rights for showing of Jurassic Park outside of the countries specified in the contract and in fact the copyright owners of Jurassic Park have sold the same pay TV rights to companies unrelated to HBO in New Zealand, Australia and elsewhere in the Pacific (Japan, for example).

So what law is broken when an Indovision decoder, acquired in the open market, is transported to New Zealand or Australia and used there?

Member Note: This report is NOT a substitute for taking advice from your own solicitor.

First we have the contractual terms that went into effect when the CDE-2000 was acquired. If a Kiwi acquires this decoder (along with paying the annual charge of US$480 for the programming) through an "agent" in say PNG, the agent when acquiring the decoder from the authorised Indovision distributor must sign a contract. That contract specifies that the decoder shall not be used outside of PNG, and typically the agent must fill in a physical (street) address where that decoder will be kept and used. If the agent gives a New Zealand address, everything stops: There is no sale of the decoder, there is no programme subscription simply because New Zealand is not within PNG nor within the list of countries specified by HBO.

The "agent" knows this and will supply the Indovision distributor with an incorrect address; one that is within PNG. At this point the "agent" has supplied false information on the programme and decoder purchase contract and he (or she) would be liable for whatever penalties as are found in PNG law for falsifying a contract.

The decoder is then shipped to New Zealand. Typically, the ultimate user ion New Zealand has signed nothing (other than, perhaps, a cheque to purchase the decoder) and while the user may have some knowledge of the "fraudulent information" the agent supplied on the contract with Indovision, the Kiwi user did not personally sign the contract for programming service.

The decoder is now in New Zealand and when connected to a suitable C1 3m or larger dish receiving system will supply instant access to at least TNT + Cartoons and HBO Asia (ESPN and Discovery, because of a malfunction of the C1 satellite, are presently too weak to be received with anything smaller than a 10m dish).

Is this illegal?

Certainly the agent in PNG is at some risk for supplying "false information" to the Indovision agent. How much risk depends totally upon the language of PNG commercial (contract) law; a subject we cannot elaborate upon. It is possible, however, that in a country such as PNG supplying "false information" on a contract is "no big deal." The Kiwi user, however, did not participate in this act and is therefore not involved in the supplying of false information.

With the decoder now in New Zealand, the laws of New Zealand apply. The relevant law is the 1994 Copyright Act. This law clearly states that it is the responsibility of the programmer to encode his satellite programming if he does not wish it to be viewed in New Zealand. The law also states that if someone circumvents this encryption in New Zealand, it is the responsibility of the programmer to bring suit here. However, in our example the encryption has not been circumvented; the decoder was purchased in the open market and programming was paid for in advance. So what is illegal?

*Possibly* the use of HBO Asia programming in New Zealand when HBO Asia (**1**) has not obtained copyright clearances for New Zealand. Once again this particular example is not clearly dealt with in the New Zealand 1994 Copyright Act and it is our interpretation that if the "act" does apply, it would be the responsibility of HBO Asia to bring charges (civil suit) against anyone found violating their copyright clearances inside of New Zealand. The law in New Zealand (sections 227 -229) dwells upon "unauthorised use of encrypted broadcasts"

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1/ "HBO" (and "HBO Asia") are registered trademarks. In New Zealand, Sky Television Network has purchased the right to use this trademark in conjunction with its own movie service. However, there is no relationship between "SKY HBO Movies" and "HBO Asia" and HBO Asia movie offerings should not be confused with Sky movie offerings; the two are distinctly different as even a cursory examination of the current HBO Asia schedule will confirm when compared against Sky Movies in New Zealand or Galaxy movies in Australia.

but begins from the premise that someone has acted to defeat the encryption system using some form of piracy technique. Paying for programming is not the same as "hacking" the encryption system so it is possible the law is not applicable.

The Palapa situation is further muddied by mixed copyright clearances of ESPN, Discovery and TNT + Cartoons. ESPN and Discovery are cleared for New Zealand and Australia as evidenced by the pay TV firms that have affiliation with each in those countries (ESPN with OptusVision and Sky Networks; Discovery with Foxtel and Sky and numerous independent cable operators). Thus, unlike HBO Asia which claims to not have movie rights to allow viewers in New Zealand and Australia, ESPN and Discovery can make no such copyright claim. TNT + Cartoons is also widely used in both countries by cable affiliates.

This means viewers in either country are not in violation of copyrights by viewing these services. A viewer in northern Australia (where small dishes work), capable of receiving all four services would, in fact, at most be pushing the copyright legality issue only when viewing HBO Asia, but not the other three.

Viewing is one thing, done in the privacy of a home, not shared with others (such as running the services through a cable or SMATV system). Sharing the reception through any form of redistribution (including in a motel's MATV system) is quite another matter.

As illustrated here (page 4), Australia's broadcasting policy group, the ABA, no longer considers it an illegal act to own a decoder and subscribe (from Australia) to "foreign" pay television services. What about Australian copyright law? An Australian Copyright Convergence Committee has been attempting for years to bring the law into the information technology era. The present law is antiquated and does not address satellite reception and therefore, unlike New Zealand's 1994 update, there are no apparent copyright conflicts.

SO - What Are The Rules?

**1)** Ultimate users: As long as they purchase both the decoder and the annual subscription through an off-shore agent, and sign no contract personally, their risk is in watching a service for which there is no copyright clearance in their country. In New Zealand, violation would have to be pursued by the offended programmer as either a court civil action or through the Copyright Tribunal. In Australia the sanctions, if any, are far less clear.

**2)** Dealer/Installer: In New Zealand, being an active reseller of programming packages may be dangerous. Demonstrating Indovision service with a "loaner" decoder is slightly less dangerous. Putting your dish customer in direct touch with an offshore agent from whom they can obtain their own decoder and programming package is least dangerous. In Australia, lacking a new comprehensive copyright law, you may not be in jeopardy at all.

**3)** Cable and SMATV: Under no circumstances carry any encrypted programming for which you do not have direct contract permission. SMATV systems that serve motels are in the same legal soup as cable systems, whether the motel charges for the TV reception or not (i.e., just because a motel does not charge for TNT, HBO et al does not give it a legal basis for carrying these services).

Elsewhere in the Pacific? It should be obvious that the biggest impediment to using these Indovision or STAR TV services is not the programmer's reluctance but rather the laws in your country. Any programmer who seeks redress has two options:

**1)** Identify the address number of the offending decoders, and turn them off by satellite delivered command, or,

**2)** File suit in the jurisdiction where the alleged violation is taking place and pursue the matter through the courts. Given the cost of this type of action, and given that nobody here is pirating service (i.e., every subscriber does pay for service), this is highly unlikely.

# SPACE

## MEMBERSHIP SHOP

**(Member discounted reference material)**

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# NEIGHBOURHOOD CABLE TV

**DELIVERING 30+ CHANNELS IN YOUR TOWN FOR $10,400 per KILOMETRE**

This describes a modern cable television system constructed in the Doubtless Bay region of northern New Zealand. This system is today operating and is being expanded at a rate of approximately 500 metres of new cable plant per week. When completed in November of this year, Doubtless Bay Cable TV will pass 1,125 homes offering more than 30 channels of high quality cable TV service for $50 per month.

Doubtless Bay Cablevision (DB TV) will spend $292.27 per home to install the system in front of or behind 1,125 homes. This includes $10,400 per kilometre for the totally buried cable TV plant and an average equipment cost of $2941.18 per channel for the 34 channels of headend equipment.

We are experiencing an initial sign-up of 12% of all homes passed with NO direct marketing done to date; we fully anticipate to have 30% of all homes passed by cable as subscribers by February 1997. At 30% of homes passed we project 338 subscriber homes within 13 months equating to an annualised gross revenue of $202,800.

DB TV has a coaxial cable plant using 50-550 MHz for the forward transmission bandwidth and 5-35 MHz for the reverse (two-way) bandwidth. We utilise .500 (one half inch) direct burial cable and bury at depths that range from 30 to 60 cm. A local contractor is used for the burial and we supply a full time employee of our own to assist with the burial. As a holder of a Network Operator status, we have the legal right to enter private or public property for the purpose of installing and maintaining our equipment. To date we have found the telephone, power, water and sewage utilities who occupy under ground space previous to us to be co-operative and helpful. We have engaged the services of a local Civil Engineer who practices in our area to assist us with District Council and Ministry of Transport permits as required. There is no reason why anyone in the Pacific cannot achieve the same or similar results with the same amount of effort and capital funding.

Our programming philosophy may be of interest. There seems to be a belief that to successfully operate a cable TV system, it is mandatory that you have a full-time, dedicated **SPORTS** channel. I am not certain I agree although certainly having sports does help sell cable. Whether it is the channel that causes a family to decide they WILL subscribe to cable or not is, I am finding, less certain.

Our philosophy is that there is no such thing as a "bad" programming channel; that if the signal is available to us, is of a certain technical quality, that it should be the subscriber, not us, who decides what will and will not be "on offer" on the cable.

As I report to you, our cable system is delivering 21 channels of television to homes. By March 1st that number will be 28 channels, by May 15th 34 channels. I expect we will reach 40 channels by November 1st, 45 channels by this date in 1997. I repeat: "*There is no such thing as a bad channel.*" We believe it is not the position or duty of the cable operator to arbitrarily decide that some channels will be carried, that some others will not. I cannot imagine shopping in a book store where the shop owner exercised his own prejudices over the books on offer; similarly, I cannot envision a cable service worthy of the name that makes decisions based upon the operator's perception of programming value.

**Does that mean that we carry <u>everything</u> we can find to carry without exercising any controls whatsoever? Not quite. There are three criteria in my channel selection decision:**

**1) <u>Is the channel unique</u>? Would it make any sense, for example, to carry <u>both</u> China's CCTV and Hong Kong's CTN? Both are significantly Mandarin with some Cantonese. I draw the line between two or more channels which are basically similar in programming, selecting the one which I feel offers the best variety of programming, and to me the cable operator, the least amount of cost per month.**

**2) <u>Is the service fairly priced</u>? We pay as little as US 20 cents per cable home per month and as much as US 85 cents per cable home per month for our various pay to use services.**

**3) <u>What sort of specialised equipment</u> does the service require? A service requiring a US$3,000 IRD receiver is acceptable value only if we can get a few years of service out of the receiver before the programmer decides to switch to a new format requiring a new receiver.**

Cable operators pay for programming based upon the number of homes connected to the cable system; we may pass 1,125 homes but we pay TNT / Cartoons for the homes actually connected only. Thus, it is practical to budget programming costs against total revenue as a percentage of the total revenues. Our budget looks like this:

a) 25% of total receipts goes towards the purchase of programming

b) 20% goes towards system operating costs

c) 5% goes into a long term system maintenance fund

d) 50% goes towards repayment of the debt incurred in building the cable system.

Out of 34 channels, 12 are channels which we pay a monthly fee to receive and distribute, 3 are the New Zealand networks for which we are obligated to pay a copyright fee, 2 are generated by our own equipment within the cable system. That means 17 or 50% are free to air to the cable system, their cost being the capital cost of satellite antennas, satellite receivers, standards converters and modulators as required at the headend to put these channels on the system.

We are not presently spending 25% of our monthly revenue to purchase programming; we are, in fact, spending less than 60% of this budgetary amount. This means I am a customer for additional pay programming, within the confines of our budget, and will add new, additional pay channels as they become available.

***"There is no such thing as a bad cable channel."***

As we hook up homes the customer receives a detailed description of the programme channels. Our set top converters which cable TV supplies have a pair of memory groups; Favourite Channels One is pre-programmed by us allowing the customer to "surf" through all of the active channels at the time of the installation. Favourite Channels Two is pre-programmed with New Zealand's TV1, TV2, TV3 and one of our two local Doubtless Bay Cable TV channels. We tell customers that if they feel overloaded with so many programming choices at first, they can retreat to the safety net provided by Favourite Channels Two - their familiar local only channels.

When we initially demonstrate the wonder of all of the cable channels in their home, people typically ask us "*Why do we have* (***) *on the cable?*" More often than not, *** is RAJ TV from India, NHK TV from Japan, CCTV from China or another of our ethnic services. We make no excuses for what we carry. Because of cable TV, Coopers Beach now has a loyal Sumo Wrestling Fan Club that never misses the weekly telecasts from Japan's NHK. Coopers Beach also has a Tamil Music Video Fan Club made up of people who are fascinated with the insight RAJ-TV brings into their homes of the Indian culture. The lady who is the local Tamil Music Video Group promoter is 78 years young and she has never met or talked with an Indian person in real life. But she LOVES their TV.

"***There is no such thing as a bad cable channel.***"

A cable television operator is in the entertainment business. If, in the process of entertaining you also educate, inform, and enthuse your customers by turning them on to things they have never previously been exposed to ... so much the better. We eagerly anticipate the availability to our cable system of Deutsche Welle from Germany, RTVE from Spain, RTP in Portugal and TV5 from France - all available to us sometime before the end of June - because each of these channels will be an "electronic window to a new culture" for our viewers.

What we see happening here is a recognition that standard commercial TV programming has become so homogenised that with few exceptions it all looks alike. We are proving in the Far North that given a choice, people will abandon homogenised murder and mayhem and violence in favour of redirecting their TV viewing hours to the discovery of worlds outside of their own limited personal experience.

Lest you get the incorrect idea, this is not a "social experiment." Doubtless Bay Cable TV is a business that begins with a sizeable capital investment. In the limited time available here today, I can but highlight the "numbers" that describe our business.

1) We are cabling four communities from a single headend: Mangonui, Coopers Beach, Cable Bay and Taipa; 1,125 homes at the present time.

2) Not every home will subscribe to our service. I believe we will see 30% of the homes passed by cable by early in 1997, that we will sell 50% of the homes by our fourth birthday.

The cable system was initially capitalised with paid in capital of $160,000; we have arranged a bank loan for the remainder of $329,000. With 17% home penetration, we are able to repay the bank according to our agreement. At 30% of home penetration, we have positive cash flow which will be utilised to start construction on our second Neighbourhood system late this year.

Our average cost per kilometre is $10,400. This includes the cable itself, the electronic equipment within that kilometre, the powering of that equipment, and the labour to install the kilometre of system below ground. In our area the typical parcel of property is 18 metres in width and for every 1,000 metres of cable we typically pass 57 residences. Our cable plant has an amplifier on average every 610 metres overall and we bring the cable above ground to directional couplers or line taps at every second parcel line serving two to four residences from each tap.

None of this is new nor innovative; this is simply the way it is done, cost effectively.

**We sell entertainment based upon the content of our service. There is a one-time installation fee that averages $75, an established monthly fee of $50 for all of our channels and an optional cable set-top converter we provide at $4.50 per month. We encourage our customers to acquire a television receiver that will directly tune all of our cable channels but offer the converter as an option. Almost no existing TV receivers in New Zealand presently will tune the full cable spectrum from 50 to 550 MHz.**

We purchase our equipment directly from the manufacturers, virtually all offshore, with the exception of the cable and some of the special connectors which we purchase from a New Zealand importing distributor. Anyone here can do the same thing; no special skills are involved. I personally map our streets in advance of preparing a cable TV wiring plan, I personally install the equipment on the cable lines. We contract the burial of our cables including the burial of our customer drop cables into the homes.

I do not anticipate receiving any personal income from the cable system for a minimum of 24 months and perhaps longer. However, as the subscriber base grows and our debt is paid down I expect this cable system to provide a suitable source of income for my family. And we will build at least two more similar systems in the Far North.

**Within our cable spectrum are two local channels which we call Doubtless Bay TV One and Two. One of these is primarily our programme guide channel where we list the coming movies on TNT and other services, the extensive sport schedule for the week, and now with the addition of NBC Asia to our system, their extensive programme schedule of sport and family features. On the audio portion of this channel we connect in the NAU-FM service from Port Moresby, PNG which we receive as a no-cost bonus along with our cable carriage of the channel 9 Australia EM TV service from PNG.**

**Our second local channel belongs to the community; announcements, news pages for various social and sporting groups, even local text advertising. The audio on this channel will shortly originate from STAR Radio, the Murdoch audio service from AsiaSat 2.**

Fibre Optics? A fair question and most technically oriented visitors to my system ask me why there is no fibre here. The reasons are many so I will reduce my explanation to dollars and cents.

I can build a coaxial cable TV plant for less than 1/3rd the cost of a fibre optic line plant when all of the costs of converting into and out of the fibre are included. A piece of fibre in the ground by itself is quite useless unless you can connect my 30+ channels at the top and siphon out to the homes I pass some form of electrical impulses which the consumer's TV set will recognise. I cannot do that today for any reasonable price.

Suppose this cost problem is resolved in five years. In those five interim years I will have reached 50% penetration of the homes we pass and I will also have completely paid for my original coaxial system. If, in five years, fibre optics does make economic sense - which it does not to me today - with a fully paid for system and with 50% of the homes in my communities connected to my coaxial cable plants, I will certainly not experience any difficulty obtaining bank funding to then rebuild with fibre. I might add that I don't expect to be rebuilding with fibre in five years - perhaps ten years.

It is far easier to obtain funding to rebuild an operating, profit making cable system then it will be today to justify the additional capital expenditure required to build the system with fibre optics. And as for providing a service which includes telephony, direct impulse shopping and wagering of bets with TAB through a fibre optic system - well, today I am in the television delivery business. Five, ten years down the road - that might change. Today I don't require fibre optics to deliver the TV entertainment I have for sale.

In closing, a few observations. There are people in this audience today who attended our first satellite and cable show in Hastings, New Zealand in September of 1994; 16 months ago. Some of you came to me after a similar session and said you wanted to build a cable system in your town. I would ask how many have done this in those 16 months. I understand the fear you may have of the unknown, the reluctance to mortgage your home or ask friends and relatives for investment funds given your own uncertainty about how well this might work.

So a caution. Cable is coming to your town. If you don't do it yourself, somebody will shortly arrive who will do it. And unless you live in Auckland or Wellington, that somebody will be a private entrepreneur just like you are. I was recently shown, in confidence, a year long study by an offshore group which claims they will build cable TV systems here. That study listed 51 towns in this country which they were targeting for cable. The towns were rated based upon whether or not TV1, 2 and 3 were well received in each, whether Sky was available in each, by the number of kilometres of street and the number of homes in each; 11 measurement criteria applied to each town. Out of that list of 51 towns, eleven stood out as outstanding cable investments. Satellite programming is finally here, in abundance. Where satellite goes, cable shortly follows. The clock is ticking - will you be seated here next year as a new cable operator, or, as somebody who missed another opportunity to get in on the ground floor of a business that will have a dramatic influence on your life and lifestyle?

The choice is yours.

# August 1996 SPACE Pacific Programming Sources Update

| Programmer | Bird/IF | DTH | SM ATV | CA TV | Contact | Telco | Fax |
|---|---|---|---|---|---|---|---|
| ABN | PAS2/1002 Vt | Yes | Yes | Yes | Mr. Selwyn Cathcart | 64-6-356-2749 | 64-6-355-2141 |
| Bloomberg Financial | PAS2/1249 Hz | No | No | Yes | Unknown | | |
| CCTV | PAS2/1434 Hz | FTA /2A | Yes | Yes | Mr. John Lynam | 64-6-878-9081 | 64-6-878-5944 |
| CMT | PAS2/1249 Hz | Yes | Yes | Yes | Mr. Ken Clark | 64-9-426-0481 | 64-9-426-0581 |
| CNNI | PAS2/1183 Hz | FTA | Yes | Yes | Ms. Yvette Jollye | 61-2-9900-3111 | 61-2-9957-5472 |
| CTN | -See ABN- | Yes | Yes | Yes | -See ABN- | | |
| Deutsche Welle | As2/1150Hz | FTA /2 | Yes | Yes | Mr. Johannes Firsbach | 49-221-389-2731 | 49-221-389-2777 |
| Discovery (5) | PAS2/13XX Hz | No | No | Yes | Mr. John Fellet | 64-9-579-9999 | 64-9-579-0910 |
| ESPN | C2/1050Vt | Yes (5) | No | No | (5) | | |
| Filipino Channel (6) | PAS2/1060 Hz | Yes | Yes | Yes | Ms. Patricia Daza | 63-2-921-3759 | 63-2-924-2732 |
| HBO Asia (5) | As2/1150Hz | Yes (5) | No | No | (5) | | |
| MCM Paris | As2/1150Hz | FTA /2 | Yes | Yes | See DW above | | |
| MTV Asia | PAS2/1346 Vt | No | Yes/ 4 | No | Mr. Michael Fleck | 61-2-9977-0188 | 61-2-9977-0934 |
| NBC/CNBC | PAS2/1002 VT | No | Yes | Yes | Ms Emma Fung | 852-2965-6585 | 852-2965-6558 |
| NHK Japan | PAS2/1115 Hz | FTA | Yes/ 1 | Yes/ 1 | Mr Yuichi Akatsu | 81-3-5478-3369 | 81-3-3481-1803 |
| RAI 1 Italy | As2/1150Hz | FTA /2 | Yes | Yes | See DW above | | |
| RTVE Spain | As2/1150Hz | FTA /2 | Yes | Yes | See DW above | | |
| TNT/Cartoon (5) | PAS2/1218 Vt | No | Yes | Yes | See CNNI above | | |
| TV5/Paris | As2/1150Hz | FTA /2 | Yes | Yes | Mr. Jim Hodgetts | 33-1-44-18-5571 | 33-1-44-18-0655 |
| TVC/The Value Ch. | PAS2/970Vt | FTA | Yes/ 3 | Yes/ 3 | Mr. George Frame | 61-2-513-8000 | 61-2-513-8100 |

**1/** NHK is FTA in analogue NTSC but requires contracts for use by SMATV and CATV systems. **2/** DW and other EBB package services are in MPEG-2 format requiring suitable digital receiver. Transmissions are FTA digital but require contracts for SMATV and CATV use. 2A/CCTV feeds are S-A PowerVu format but FTA. **3/** TVC pays cable and SMATV operators to cary their signal. **4/** MTV Asia only available to qualifying hotels. **5/** ESPN, TNT, HBO, Discovery available Palapa C2 in "grey market." **6/** Filipino requires unique receiver.

# Programming Services With Copyright Problems

Several programming services are available on the "grey market" which means the decoders and the annual programme subscriptions are being sold outside of the geographic territories where they are authorised to be sold. "Authorised" service is supposed to be limited to the following countries and territories: Bangladesh, Brunei, Indonesia, Papua New Guinea, (The) Philippines, Taiwan, Thailand, and Singapore. In fact the CDE-2000 decoder (see SatFACTS #21, p. 6) and the companion annual subscription packages are being sold beyond these countries, largely be satellite TV dealers located in Queensland, Northern Territory, Solomon Islands and New Caledonia. Service is via the Palapa C2 satellite which provides varying levels of service throughout Australia, New Zealand and the Pacific Islands. Users in Queensland, NT, NSW report usable service on HBO Asia, TNT/Cartoon Channel, Discovery and ESPN; in Victoria ESPN or Discovery may not be usable depending upon dish size. In south central and Western Australia, none of the services are usable. In the New Caledonia region HBO, TNT and Discovery are useful on 3m range dishes. Further north in the Solomons, HBO and ESPN are not usable even on 4m size dishes. IN New Zealand, only HBO and TNT/Cartoons are usable.

Within the "authorised countries" the CDE-2000 decoder sells typically for US$310 and the full year programme subscription for the four channels sells for US$264. Convert that to your local currency and then determine the "premium price" you may be asked to pay for the privilege of having these services through a "grey market" outlet. An additional concern is how you will renew the programme subscription at the end of 12 months; you probably don't want to be purchasing another new CDE-2000 plus subscription on an annual basis.

The long term future of these package of four channels is by no means certain. A competitive system backed by Hong Kong Based Star TV is scheduled to begin operations for Indonesia in October using digital delivery techniques on Palapa C2. Unfortunately for the area south of the equator, the transponders selected for this new digital service are beamed to the north into Asia proper (see SatFACTS #24, p. 2). Use of these C2 transponders is only short term and the entire service will move to the new Indostar "S" band satellite (see SatFACTS #21, p. 7) sometime in 1997. What the four channel service featuring HBO Asia et al will do as a result of this new competition is conjecture but their long term use of the present B-MAC encryption system (and the CDE-2000 decoder) is unlikely.

The "degree of illegality" in subscribing to this service beyond the countries/territories where it is "authorised" depends totally upon the laws in your country of domicile. In the very best case, it will be a violation of the civil contract terms between the service provider and the original buyer of the CDE-2000 unit. In the worst case there may be criminal penalties as well.

AFRTS (presently I177E) is another service for which there is no "legal" authorisation. Unlike the four Palapa services described above, the (American armed forces) AFRTS transmissions are never authorised outside of the US diplomatic and military world. The service utilises analogue NTSC B-MAC encryption identical in technical format to that used by ESPN, MTV Asia, TNT/Cartoons et al on PAS-2. The service went "encrypted" in the mid 1980s in response to complaints from countries around the world who saw it as an "invasion" of their sovereign rights to limit television reception to programming created within each country, and to protect the copyright of the various US programme sources which provide material to AFRTS.

The B-MAC encryption system was first violated by "hackers" in Europe where a special AFRTS (AFN) feed exists for US personnel in the eastern Mediterranean. Advertisements routinely now appear in numerous widely read European satellite and electronic publications offering AFRTS reception to anyone willing to part with (typically) US$3,500. The hacked version employs a genuine S-A 9708 IRD or a standalone B-MAC decoder (model 9700) which has been software altered to allow the user to monthly input new "authorisation keys." The keys are provided as a part of the "service" by the firm supplying the hacked unit.

Nothing about this is legal under US law. In other countries, local copyright protection legislation would apply and establish the degree of "illegality" involved. In the absence of specific legislation, such as is the case in many Pacific island nations and in some Asian countries, there is no illegal act. However, the buyer is always at risk being dependent upon the hacked equipment source for monthly "key" updates, and AFRTS may change to digital shortly.

# MORE: Programming Services With Copyright Problems

Star TV's single channel analogue service, available from Palapa C2 (4180RF/970IFVt) consists presently of a mixture of programming taken from Star's "V" channel (music) service, their sport service, their Star Plus general entertainment service and an evening (Indonesian time) movie period. The PAL format service is FTA for all but the movie portion.

Star encrypts the movie portion using a Videocrypt format but operates it "open key" (i.e., accessing the movie does not require a "Smart Card" with paid subscription, only a receiver equipped with the Videocrypt decoder). For this reason access to this channel requires only the purchase of a suitable (Pace model) Videocrypt decoder equipped satellite receiver. With the correct decoder equipped receiver, the service is "transparent" to the Videocrypt encoding.

Star encrypts the movie portion for two reasons: To protect its movie agreements with the movie sources (having paid only for copyright clearance in Indonesia), and, to prepare Indonesia (the country) for the late 1996 / early 1997 launch of a new, multiple channel Star supported all digital Indovision service package. The single channel service on Palapa C2 is operated as a "billboard" to announce the arrival of the considerably larger, more complex, and available only on subscription service coming.

Within the coverage limitations of C2, this service is available to non-Indonesian viewers. Major segments of Australia (minus primarily western regions and Tasmania) have access to this service and a sizeable quantity of the Pace Videocrypt receivers are sold to viewers there. Because the Pace receiver is basically an FTA plus Videocrypt equipped IRD, the same receiver is also used to receive the dozens of normal FTA services found on Palapa and other satellites visible in Australia. The receiver comes out of the box ready to operate on the Star Videocrypt service and no registration, subscription or other fees are required.

There are two concerns here: Star may well elect to terminate this FTA service when it begins the new all digital multiple channel service; or, it could reprogram the channel as a "barker channel" directing viewers to a subscription centre for the all digital service. Or, Star could elect to upgrade the present level of Videocrypt to require the addition of a "Smart Card" subscription for continued service on this channel.

For the time being, the channel is available, it is operated as an FTA service 24 hours per day provided you have the correct version of Pace IRD, and the difference in cost between the Videocrypt capable Pace receiver and a similar function receiver without this feature is small (typically under A$100).

Several Palapa C2 services employ "occasional encryption" primarily during transmission of programming sourced from the USA. You will see this video-only encryption appearing on Filipino GMA, Malaysian RTM and TV3 or a daily basis; less frequently on others. These are "closed circuit" encryption systems put into operation to satisfy programming use agreements (i.e., copyright). To date there has been no known attempts to "hack" these services when encrypted and anyone dealing in such hardware (if it existed) would be subject to the same penalties as would apply to (for example) dealing ion hacked AFRTS B-MAC IRD or decoder units within the country where the activity is taking place.

NBC Asia has a unique problem relating to copyright. Their primary programming source is NBC-USA and various prior sale agreements exist between NBC-USA and many Pacific/Asian broadcasters for specific programmes. For this reason the NBC-Asia schedule has segments each day which have not been copyright-cleared for satellite viewer use in countries such as New Zealand and Australia. Over time this agreements will expire and programmes now restricted for use in countries such as New Zealand will become available there. At the present time NBC-Asia utilises an "Open Key" (non-conditional access) variant of MPEG-2. Anyone equipped with a Pace DVR-500 or Panasat IRD520 digital receiver can access any of the 7 programme channels transmitted, regardless of location. At some future date NBC will supply conditional access modules (CA devices) to all authorised receivers and through the CA addressing system receivers located where certain programmes are not cleared will find those programmes eliminated from the reception package.

# CABLE TV and SMATV ONLY SOURCES

Commercial contracts for use of programming intended primarily for cable and satellite master antenna (SMATV) systems are possible for some of the services which at this point in time refuse to accept DTH (direct to home) subscriptions. Members are advised that in countries where pre-existing affiliate agreements exist (example: ESPN through Sky in New Zealand) there is no point in wasting your time contacting the programmer. Where exclusive contracts pre-exist, you cannot negotiate use rights even if the existing rights holder operates in a region far removed from your cable/SMATV location.

| Source | Bird/IF | SMATV | CATV | Rates | Contact | Telco | Fax |
|---|---|---|---|---|---|---|---|
| ABN | PAS2/ 1002Vt | Yes | Yes | <U$.30 p/m | | | |
| CMT | PAS2/ 1249Hz | Yes | Yes | <U$.50 p/m | Ms. Carolyn Gossman | (USA)203-965-6000 | (USA)203-965-6315 |
| CNNI | PAS2/ 1183Hz | Yes | Yes | <U$1.00 p/m | Ms. Yvette Jollye | 61-2-9900-3111 | 61-2-9957-5472 |
| Discovery | PAS2/ (digital) | No | Yes 1 | <U$1.00 p/m | Mr. Mark Lay | 65-548-0588 | 65-548-0598 |
| ESPN | PAS2/ 1288Vt | Yes 2 | Yes 2 | Negotiable | Mr. Alexander Brown | 852-2887-1199 | 852-2887-0813 |
| MTV Asia | PAS2/ 1346Vt | Yes 3 | No | <U$.50 p/m | Mr. Michael Fleck | 61-2-9977-0188 | 61-2-9977-094 |
| CNBC/ NBC Asia | PAS2/ 1057Hz | Yes 4 | Yes 4 | <U$.75 p/m (4) | Ms. Emma Fung (4) | 852-2965-6585 | 852-2965-6558 |
| NHK Japan | PAS2/ 1115Hz | Yes | Yes | Unknown | Mr. Yuichi Akatsu | 81-3-5478-3369 | 81-3-3481-1803 |
| Sky Racing | As2/ 1130Vt | Yes | Yes | (5) | Mr. Steffen Holzt | 687-28-41-56 | 687-28-41-56 |
| TNT/ Cartoons | PAS2/ 1218Vt | Yes | Yes | <U$1.00 p/m | Ms. Yvette Jollye | 61-2-9900-3111 | 61-2-9957-5472 |
| Value Channel | PAS2/ 1400Vt As2/ 1490Vt | Yes (6) | Yes (6) | (6) | Ms. Simone Messenger | 61-2-513-8000 | 61-2-513-8100 |

**1**/ Discovery has (mid August 1996) converted from PAL B-MAC to PowerVu MPEG on PAS-2. They will affiliate with cable TV in most areas but there are pre-existing deals with pay TV operators in NZ and Australia which may restrict access. SMATV is not encouraged. **2**/ ESPN has pre-existing affiliations in NZ, Australia; will deal in Pacific islands but requires sizeable annual minimum guarantees that seem to be negotiable. Don't expect an easy time with them. **3**/ MTV Asia will only affiliate with hotels that have a high percentage of Mandarin speaking clients which eliminates just about every hotel outside of Asia proper. **4**/ CNBC is available to hotels/motels at US$.03 per occupied room per night. NBC Asia is going through a content transition which limits its use in many countries. Where available, rate is $.06 per occupied room per night for the combination of CNBC and NBC. For facilities with 100 rooms or more, NBC pays for the DVR-500 IRD units. **5**/ Australian (Sky) horse racing is switching from B-MAC to Pace MPEG on As2 before end of 1996. Individual dish owners typically pay in the range of US$2,000 per year for access. **6**/ The Value Channel actually pays cable TV operators to carry their programming; a percentage of the sales inside your cable TV territory.

# Sources for IRD and Decoder Equipment

IRD (integrated receiver-decoders) and decoders ( stand alone decryption units that require a suitable satellite receiver to function) are available through the satellite programmers (for cable TV and SMATV, not DTH) and through authorised programme agents (for DTH and some SMATV applications). Some services,, such as the HBO/Discovery/ESPN/TNT package on Palapa C2 require one format decoder for DTH, another for SMATV and CATV. Analogue decoders presently required in the Pacific are all in the (S-A) B-MAC family. There are NTSC (TNT, ESPN, MTV etc.) and PAL (HBO/Discovery/ESPN/TNT on C2) versions of B-MAC. Normally a PAL version will not process NTSC and vice versa.

MPEG digital is new to the Pacific and Asia and there is presently no established single format for transmission of MPEG-2 being followed by programmers or transmission sites. Scientific Atlanta calls their variation of MPEG-2 "PowerVu" and you can only receive a PowerVu transmission with a PowerVu version receiver (presently the D9223).

The European Bouquet (EB) of programming (consisting of German Deutsche Welle, French TV5 and MCM, Italian RAI Uno and Spanish [R]TVE) is attempting to establish a common MPEG-2 transmission format with its AsiaSat 2 transmissions. They utilise a European and world adopted format known as DVB Compliant. Unfortunately, virtually no other programmer has elected to utilise this MPEG-2 standard although this was the standard adopted by the world's broadcasters.

At the present time (August 1996) programmers transmitting into Asia and the Pacific are following a course of modifying the basic MPEG-2 DVB Compliant format to their own unique requirements. SOme, such as Star TV, do so for selfish commercial reasons; others, such as PanAmSat, have made a format selection based upon their perception of which of the various sub-formats of MPEG-2 they believe will ultimately become the "real" standard (having chosen the S-A PowerVu variation).

Digital receivers are presently judged by their "interoperability," a word that means "how many different variations of MPEG-2 can this receiver be made to function with?" This is a constantly changing technical area and programmers can make very small changes in the way they transmit their programmes to eliminate different receivers from receiving their transmissions. A recent example of this is the change in transmission format by Australian Galaxy which resulted in eliminating from their DGT-400 (Pace) receivers already in the field the ability to also tune in the EB package on C-band (see SatFACTS #24).

At this point in time, there is no digital receiver capable of receiving more than two or three of the various transmission formats being utilised. As more new digital programmers come into operation, each with their own self-selected format, this situation will in the short term become even more complicated.

The present situation is "not consumer friendly" and we do not forecast an improvement in the present situation in the coming 12 months.

# UNTANGLING THE MANY VERSIONS OF S-A IRDs/DECODERS

Scientific-Atlanta is the primary supplier of analogue and digital decoder receivers (IRDs) and decoders in the Pacific, outside of the Galaxy Pace DGT-400 used by Galaxy. There are many S-A IRD and decoder models and each is designed for a specific application. This chart may help you better understand the universe of S-A units available and where each is intended for use.

| IRD/Decoder Version | Used With ... | Helpful information from | Notes |
|---|---|---|---|
| Indovision CDE2000 | Indovision: HBO/TNT+/ESPN/ Discovery on Palapa C2 | Indovision/P.T. Amcol Graha Electronic Ind. tel 62-21-850-8182 or 61-21-850-8181 | Distributed by P.T. AMCOL/Sony throughout Indonesia |
| IndiaVision CDE2202 | Proposed IndiaVision DTH package | unknown | Variation of CDE2000 proposed for PAS-4 DTH |
| SA9708 | ESPN (C2, Apstar 1, PAS-2, PAS-4) | Anna Chan (ESPN), tel. 852-2887-1199; fax 852-2887-0813 | PAL C2, Ap1, PAS-4; NTSC PAS-2 |
| SA9708 | TNT + Cartoon (C2, Apstar 1, PAS-2) | Bryan McGuinte (Turner) tel 852-2826-4500; | PAL C2, Ap1; NTSC PAS-2 |
| SA9708 | HBO (C2, Apstar 1) | Jacelyn Kek (HBO) tel 65-288-6303; fax 65-287-2210 | PAL format |
| SA9708 | MTV Viacom (Apstar 1, PAS-2) | Bruce Ross (MTV) tel USA 212-258-8476; fax 212-258-6572 | NTSC format |
| SA9708 | Disney (Apstar 1) | Steve Schaefer (Disney) tel 65-542-2335; fax 65-542-2339 | PAL format |
| D9222 (MPEG 1.5) | Liberty Sports (PAS-2) | Bill McKenna (Liberty) tel USA 713-661-0078; fax 713-661-5601 | SA DVC Phase 2, FEC 7/8 |
| D9223 PowerVu (MPEG 2 variant) | PanAmSat on PAS-2, PAS-4 | | Commercial receiver for broadcast, cable |
| D9225 PowerVu (MPEG 2 variant) | PanAmSat on PAS-2, PAS-4 | | "Economical" cable headend receiver (1) |
| D9232 (MPEG 1.5) | Middle Eastern Orbit service | Cyprus 357-909-5000 | Consumer FTA analogue, fixed MPEG 1.5 |
| D9233 PowerVu (MPEG 2 variant) | | | "Consumer version" receiver (1) |
| D9234 PowerVu (MPEG 2 variant) | | | "Business" class MPEG receiver (1) |

1/ Models D9225, 9233 and D9234 are not yet available for shipment (August 1996). Model D9233 may also have nominal FTA analogue capability like D9232 presently does for Orbit service (see SatFACTS #24, p. 31).